

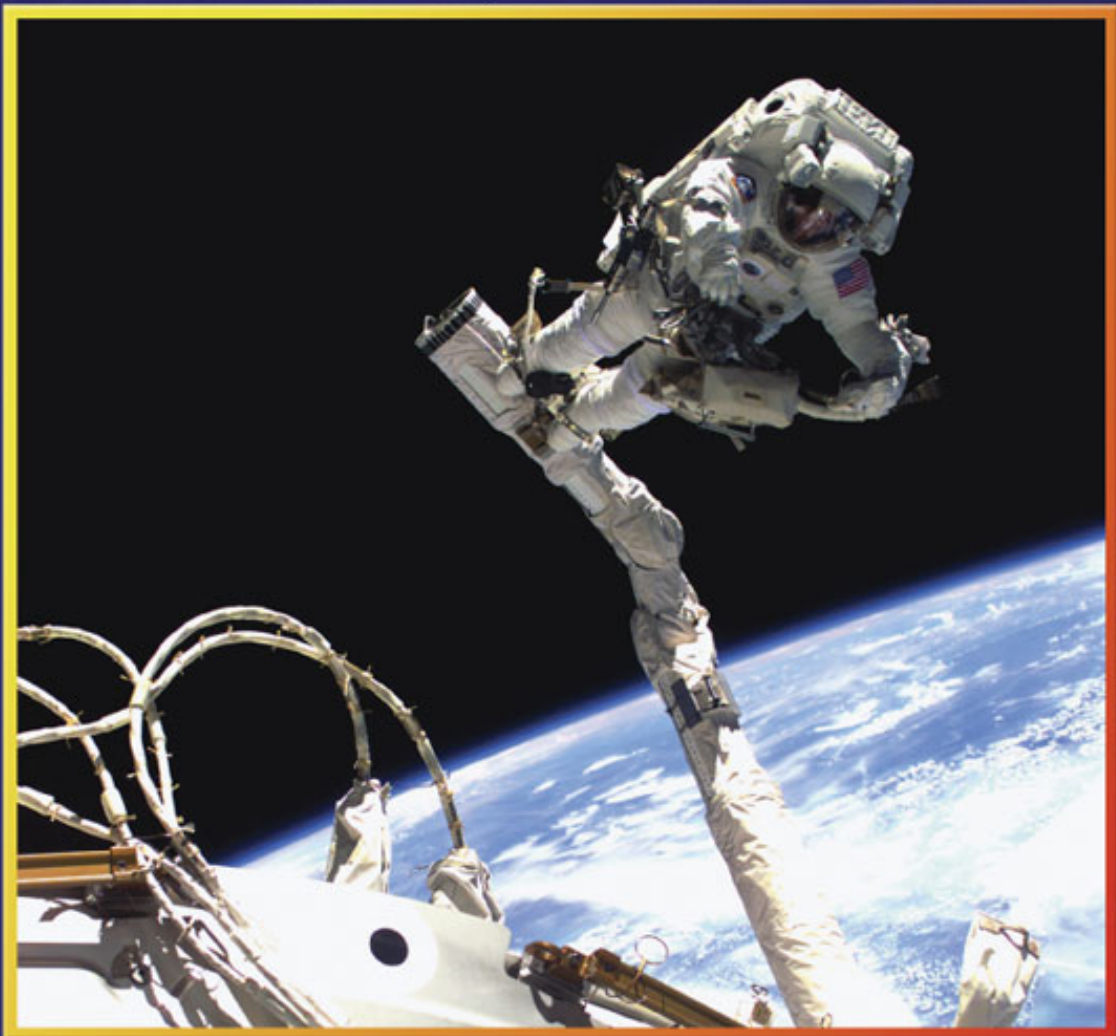
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HOUGHTON MIFFLIN

Vocabulary Readers

Training for Space



by Lee S. Justice

Number of Words: 508

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Training for Space



by Lee S. Justice



Strategy Focus

As you read, **evaluate** how well the author explains preparing for space travel.



HOUGHTON MIFFLIN

BOSTON

Key Vocabulary

aeronautics design and building of aircraft

applicants people who request a job or membership

astronaut someone trained to fly in a spacecraft

demonstrated showed clearly

laboratory place for scientific research

methodically in an orderly way

physics science of matter and energy

qualifications skills for a particular job

rocketry science of designing and building rockets

simulate pretend or imitate

Word Teaser

Before becoming astronauts, most people were _____.

Would you like to explore the universe in a spacecraft? If so, maybe someday you can train to become an astronaut.

Since 1959, the National Aeronautics and Space Administration (NASA) has trained about 300 astronauts. For many Americans, training with NASA is the chance of a lifetime. But it takes a lot of hard work, too.

▼ The first American astronauts were chosen in 1959.



About 4,000 applicants try out for NASA's training program each year. All applicants must meet several qualifications. They must be college graduates. Most have degrees in math or engineering, or in a science such as physics. Applicants also need experience in a job related to space science.

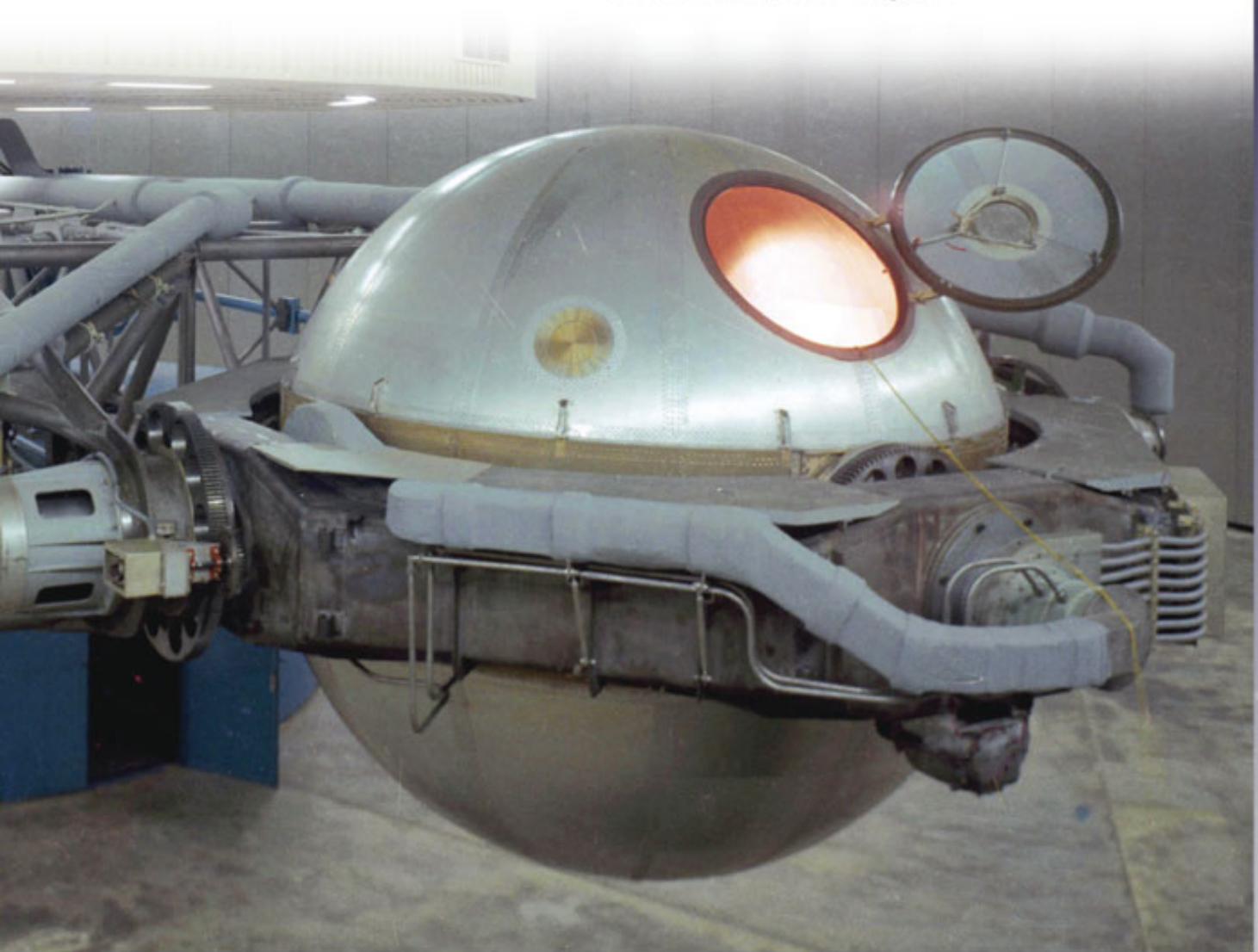
▼ An astronaut training in 1993.



NASA also looks for people with good personal traits. Before being admitted to the program, a person must have **demonstrated** good communication and teamwork skills.

About 20 applicants are chosen for the one-year training course. If they complete this basic course, they become astronauts!

- ▼ **Three astronauts can fit in this gondola. It imitates the pressure of a real space flight.**



Astronaut trainees study the science of **rocketry**. They learn about the systems that keep a spacecraft on course. They study the systems that provide air, food, and water.

Astronauts in training also learn about safety. They study first aid and emergency landings. They might even have to jump from a flying aircraft!

- ▼ **US Astronaut Kevin Kregel practices an emergency landing in water.**



- **US Astronaut Fincke climbs out of his spacesuit after a training session.**



The training program also gets astronauts ready for life in space. Gravity, the force that holds everything to Earth's surface, is very weak in space. Astronauts feel very light, or even weightless. It can be an uncomfortable feeling. Without much gravity, it can be hard to tell which way is up and which is down.

▼ Astronauts train in a special pool.



Being in space feels a lot like being underwater. So to prepare for space, astronauts jump into a special swimming pool. It's one of the largest pools in the world. The astronauts wear their space suits underwater. They perform tasks like those they will do in space.

The astronauts also train in a special plane. It climbs very fast and very steeply into the air. Those inside float as the airplane **simulates**, or imitates, the conditions on a spacecraft. The experience makes many people sick!



Astronaut trainees also practice in model spacecrafts. They study the controls **methodically**. Trainees spend days inside these models getting ready for the work they will do in space.

Years may go by before an astronaut leaves Earth. During that waiting period, they work on the ground. They keep studying. They keep training until they are assigned to a space flight.

▼ A model spacecraft



What will they do on that first flight? Many astronauts do experiments in space. The spacecraft serves as a **laboratory**. Astronauts study changes that take place in space.

Some astronauts deliver supplies to the International Space Station. They fly other astronauts to and from the station. They make repairs.

Other astronauts help educate people about space. They explain the flight to those back on Earth.

Why do people choose to become astronauts? They believe it's important to study space. They are very curious about the universe. They love new experiences.

If all that sounds exciting to you, you might be the perfect person to go into space someday!



Responding

Putting Words to Work

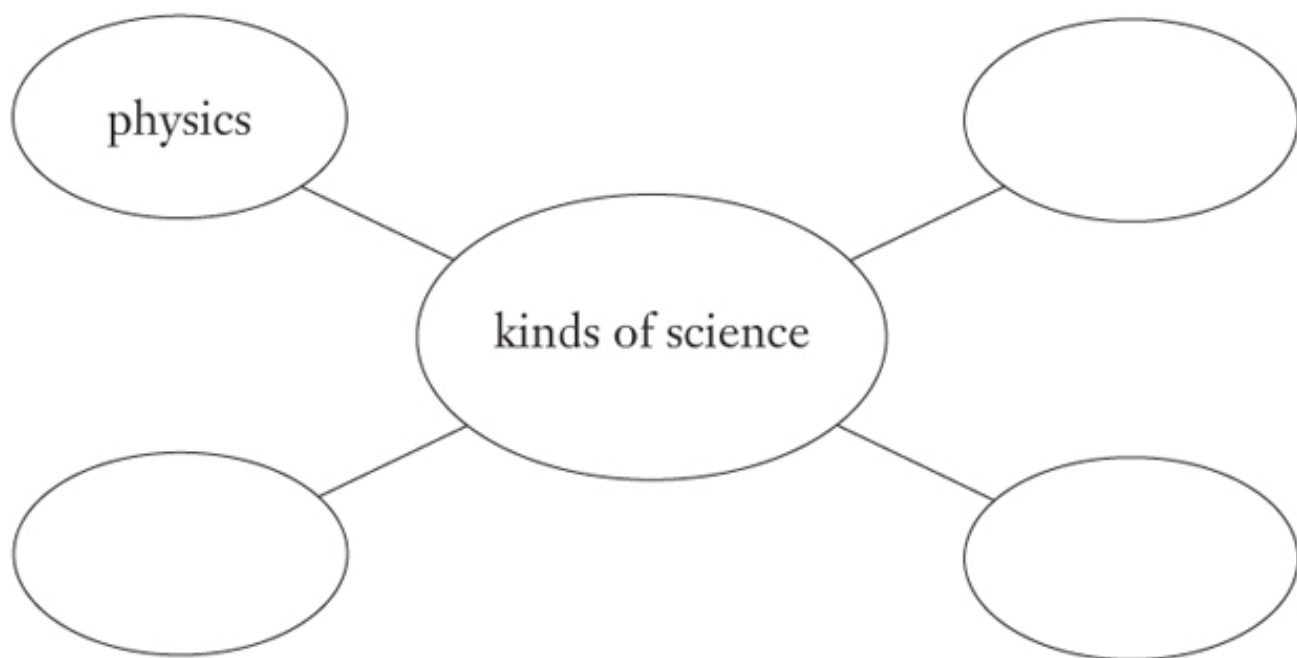
1. What **qualifications** do NASA's **applicants** need to have?
2. What are some jobs that **astronauts** perform in space?
3. Complete the following sentence:
In the **laboratory**, scientists tried to **demonstrate** _____.
4. Describe a time you worked on something **methodically**.
5. **PARTNER ACTIVITY:** Think of a word you learned in the text. Explain its meaning to your partner and give an example.

Answer to Word Teaser

applicants

Word Builder

Physics is one kind of science taught in schools and colleges. What are others? Copy the word web. Fill it in with different kinds of science.



Write About It

Write a paragraph explaining whether you would enjoy being an **astronaut**. Try to use words from your word web as well as Key Vocabulary words.

Key Vocabulary

aeronautics
applicants
astronaut
demonstrated
laboratory
methodically
physics
qualifications
rocketry
simulate

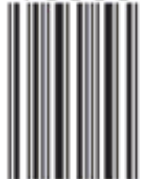
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